FIG. 1

28

23

26H

26G

26F

26E

26D

25

26C

26B

26A

16A

T7

T8

T9

26P

26O

26N

26M

26L

26K

26J

26I

16B

27

FIG. 2

20

USER
INTERFACE
31

TELEMETRY
40

PROCESSOR
30

INPUT/OUTPUT
42

MEMORY
32

SEARCH
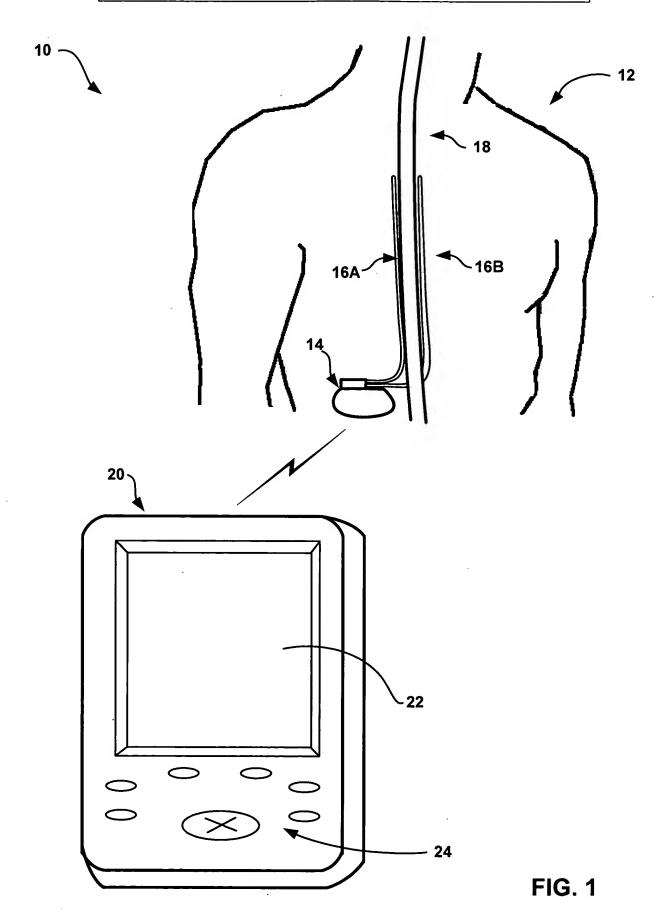ALGORITHM
34
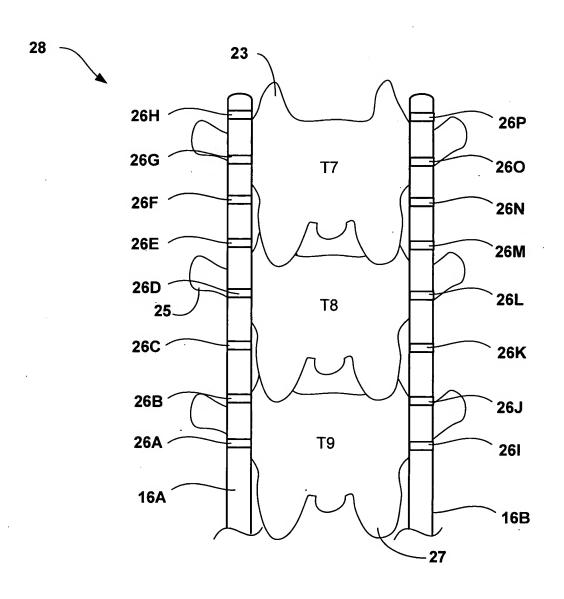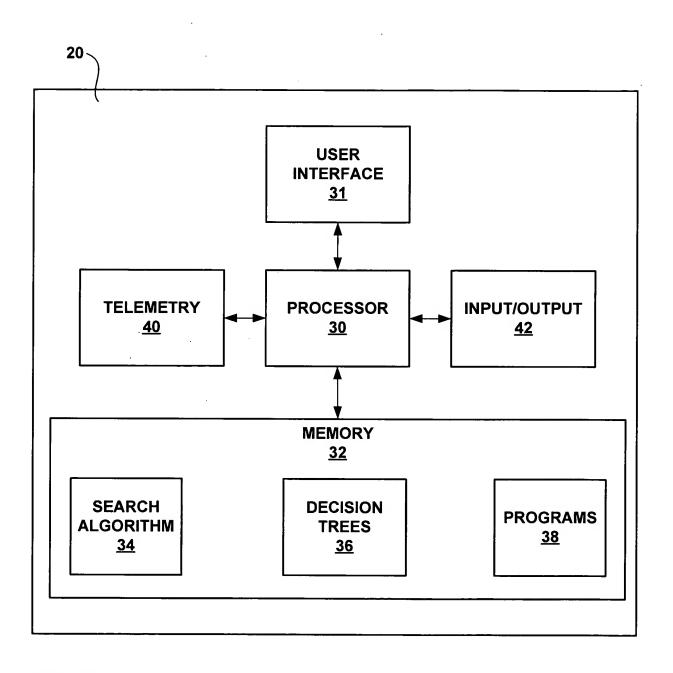
DECISION
TREES
36

PROGRAMS
38

FIG. 3

APPLICANT: STEVEN GOETZ
TITLE: SELECTION OF NEUROSTIMULATION ELECTRODE
CONFIGURATIONS USING DECISION TREES
ATTORNEY/AGENT: STEVEN J. SHUMAKER   REG. NO. 36,275   TELEPHONE: 651.735.1100
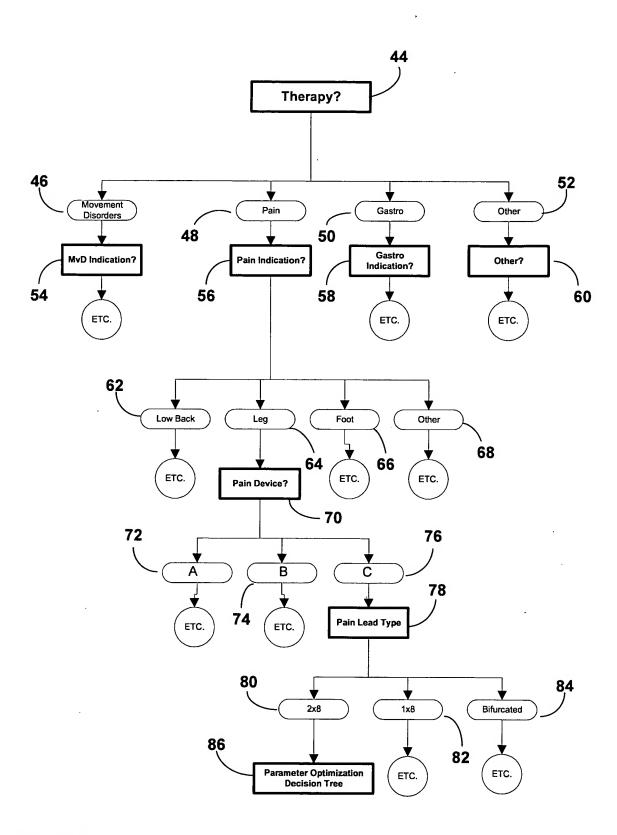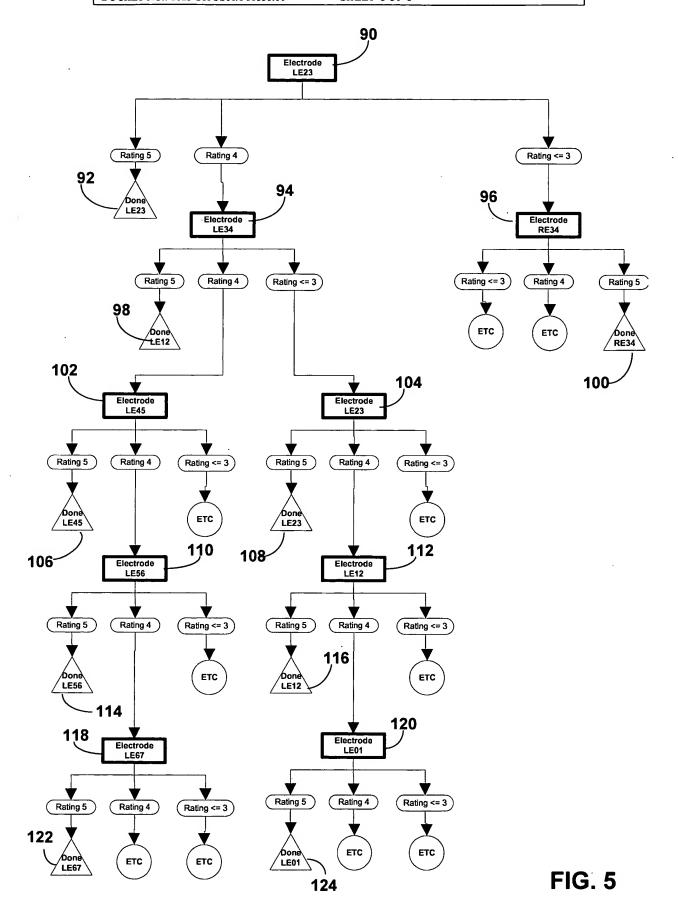DOCKET NO.: 1023-261US01/P11535.00   SHEET 4 OF 6

44

Therapy?

46   **52**

Movement Disorders   Pain   Gastro   Other

48   **50**

MvD Indication?   Pain Indication?   Gastro Indication?   Other?

54   **56**   **58**   **60**

ETC.   ETC.   ETC.

62

Low Back   Leg   Foot   Other

ETC.   Pain Device?   ETC.   ETC.

64   **66**   **68**

70

72   **76**

A   B   C

ETC.   ETC.   Pain Lead Type

74   **78**

80   **84**

2x8   1x8   Bifurcated

86

Parameter Optimization Decision Tree   ETC.   ETC.

82

FIG. 4

FIG. 5

126

ACCESS DECISION TREE

128

INITIATE SEARCH ALGORITHM

130

SELECT THERAPY, INDICATION, DEVICE AND
LEAD CONFIGURATION VIA FIRST TREE

132

SELECT ROOT NODE IN SECOND
TREE FOR ELECTRODE CONFIGURATION

134

OBSERVE EFFICACY

135

EFFICACY
THRESHOLD SATISFIED?   **YES**

NO

136

EXPAND ROOT NODE AND SELECT NEXT-
LEVEL NODE BASED ON EFFICACY

144

138

OBSERVE EFFICACY

140

EFFICACY
THRESHOLD SATISFIED?   **YES**

NO

NO

EFFICACY
THRESHOLD SATISFIED?

ITERATION LIMIT EXCEEDED?   **142**

YES

146

ADD SELECTED ELECTRODE CONFIGURATION
TO NEUROSTIMULATION PROGRAM

FIG. 6